

## A B S T R A C T

A METHOD AND APPARATUS FOR ANONYMOUS SIGNATURE BY MEANS  
OF A SHARED PRIVATE KEY

5           The invention concerns a cryptographic method and  
apparatus for anonymously signing a message. The method  
consists in adding to the anonymous signature an  
additional signature which is calculated (operation 13)  
10 using a private key common to all the members of a group  
authorized to sign and unknown to all revoked members.  
Said private key is updated (operations 8, 11) at group  
level on each revocation within the group and at member  
level only on anonymous signing of a message by the  
15 member. The apparatus comprises as many smart cards as  
there are members in the group and apparatus comprising  
first calculating means.

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35 Translation of the title and the abstract as published by the PCT Authorities,  
possibly after making changes, ex officio, e.g. under PCT Rules 37.2, 38.2, and/or  
48.3.